

CLAIMS

What is claimed is:

1. A communication system that provides communication services to a plurality of communication devices over one or more radio frequency (RF) channels, comprising:

a resource controller that controls at least one communication

5 resource used to provide the communication services to the plurality of communication devices;

an operator interface that interfaces with the resource controller to interactively specify communication service availability to the plurality of the communication devices, wherein the specified availability is obtained by
10 controlling the at least one communication resource.

2. The communication system of claim 1, wherein the service availability is modified by changing at least one parameter essentially consisting of:

5 a number of communication devices that receive the communication services;

a number of communications devices that receive the communications services in a cell;

a bit rate over an RF channel used to communicate data with the communication devices; and

10 a coding algorithm used to communicate information with the plurality of communication devices.

3. The communication system of claim 2, wherein a system parameter is changed based on a preprogrammed algorithm to interactively modify communication service availability to the plurality of the communication devices.

15 4. The communication system of claim 1, wherein the resource controller monitors one or more system parameters to interactively modify communication service availability to the plurality of the communication devices.

5. The communication system of claim 4, wherein a system parameter essentially consists of at least one of a number of registered subscribers, load on a
20 RF channel, load on a communication resource, a traffic mix, or a coding algorithm.

6. The communication system of claim 4, wherein the resource
controller monitors load on one or more communication resources over a defined
period of time to determine how to control the at least one communication
25 resource.

7. The communication system of claim 4, wherein the resource
controller monitors the time that a communication resource is out of service for
deriving load distributions, to control the at least one communication resource.

30 8. A method for providing communication services to a plurality of
communication devices over one or more radio frequency (RF) channels,
comprising:

controlling at least one communication resource used to provide the
communication services to the plurality of communication devices; and

35 interfacing with a resource controller to interactively modify
communication service availability to the plurality of the communication devices.

9. The method of claim 8, wherein the service availability is modified by changing at least one parameter essentially consisting of:

a number of communication devices that receive the communication services;

5 a bit rate over an RF channel used to communicate data with the communication devices; and

a coding algorithm used to communicate information with the plurality of communication devices.

10 10. The method of claim 9, wherein a system parameter is modified based on a preprogrammed algorithm.

11. The method of claim 8, wherein the resource controller monitors one or more system parameters essentially consisting of at least one of a number of registered subscribers, load on a RF channel, load on a communication resource, a traffic mix, or a coding algorithm.

15 12. The method of claim 11, wherein the resource controller monitors load on one or more communication resources over a defined period of time.

13. The method of claim 12, wherein the resource controller derives load distributions for each communication resource based on a monitored load on a corresponding communication resource.

20 14. The method of claim 13, wherein the resource controller also monitors the time that a communication resource is out of service for deriving load distributions.